PRINTER RUSH (PTO ASSISTANCE) Application: 10/6/6557 Examiner: GAU: From: CW (C) IDC (FMF)FDC Location: Date: Tracking #: Week Date: DOC CODE **DOC DATE MISCELLANEOUS** 1449 Continuing Data IDS Foreign Priority **CLM Document Legibility IIFW** Fees **SRFW** Other **DRW** OATH 312 SPEC [RUSH] MESSAGE:

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[XRUSH] **RESPONSE**:

for the models are directly derived from trend curves, whereas shear velocities and densities are based on deviations from expected values based on correlations with compressional wave velocities.

5 [0020] The fluid property may be one or more of a fluid modulus, a density, and, a fluid saturation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] The file of this patent contains at least one drawing executed in color. Copies of this patent with color drawings(s) will be provided by the Patent and Trademark Office upon request and payment of the necessary fee. The present invention will be better understood by referring to the following detailed description and the attached drawings in which:

FIG. 1 is a flow chart showing an overview of the preferred embodiment of the invention;

15 FIG. 2 is a schematic illustration showing the marginal probability density functions for an attribute for the data and three different models.

FIG. 3 is an example of seismic data from the Gulf of Mexico including a horizon of interest..

FIG. 4 shows a seismic structure map for the horizon of interest.

FIG. 5 is shows the seismic amplitude for the horizon of interest for the area shown in Fig. 4.

FIG. 6 is an example of a PDF for the fluid bulk modulus for a gas filled interval and a brine filled interval

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